




ICF International / Laboratory Data Consultants

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MEMORANDUM

TO: Chris Lichens, Remedial Project Manager
Site Cleanup Section 4, SFD-7-4

THROUGH: Rose Fong, ESAT Task Order Manager (TOM)
Quality Assurance (QA) Program, MTS-3

FROM: Doug Lindelof, Data Review Task Manager 
Region 9 Environmental Services Assistance Team (ESAT)

ESAT Contract No.: EP-W-06-041
Technical Direction Form No.: 00105074 Amendment 3

DATE: August 16, 2007

SUBJECT: Review of Analytical Data, Tier 2

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

Site:	Omega Chem OU2
Site Account No.:	09 BC LA02
CERCLIS ID No.:	CAD042245001
Case No.:	None Provided
SDG No.:	IPL1281
Laboratory:	TestAmerica Analytical Testing Corp.
Analysis:	Hexavalent Chromium
Samples:	3 Water Samples (see Case Summary)
Collection Dates:	December 12, 2006
Reviewer:	Stan Kott, ESAT/Laboratory Data Consultants

This report has been reviewed by the EPA TOM for the ESAT contract, whose signature appears above.

If there are any questions, please contact Rose Fong (QA Program/EPA) at (415) 972-3812.

Attachment

SAMPLING ISSUES: ☒ Yes ☐ No

Data Validation Report

Case No.: None Provided
SDG No.: IPL1281
Site: Omega Chem OU2
Laboratory: TestAmerica Analytical Testing Corp.
Reviewer: Stan Kott, ESAT/LDC
Date: August 16, 2007

I. CASE SUMMARY

Sample Information

Samples: OC2-GW22-W-0-271, OC2-GW01-W-5-273, and
OC2-GW11-W-0-274
Concentration and Matrix: Low Concentration Water
Analysis: Hexavalent Chromium
SOW: EPA Method 218.6
Collection Date: December 12, 2006
Sample Receipt Date: December 12, 2006
Preparation Date: December 12, 2006
Analysis Date: December 12 and 13, 2006

Field QC

Field Blanks (FB): Not Provided
Equipment Blanks (EB): Not Provided
Background Samples (BG): Not Provided
Field Duplicates (D1): Not Provided

Laboratory QC

Method Blanks: 6L12152-BLK1
Associated Samples: Samples listed above
Matrix Spike: OC2-GW01-W-5-273MS1
Matrix Spike Duplicate: OC2-GW01-W-5-273MSD1

Analysis: Hexavalent Chromium

<u>Analyte</u>	<u>Sample Preparation Date</u>	<u>Analysis Date</u>
Hexavalent Chromium	December 12, 2006	December 12 and 13, 2006

Sampling Issues

None.

Additional Comments

As directed by the TOM, a Tier 2 validation (i.e., review all QC results and calibrations, minus calculation check) was performed. A Table 1A is not requested.

Definitions of data qualifiers are listed in Table 1B.

This report was prepared in accordance with the following documents:

- Region 9 Standard Operating Procedure 906, *Guidelines for Data Review of Contract Laboratory Program Analytical Services (CLPAS) Inorganic Data Packages*;
- *Methods For The Determination Of Metals In Environmental Samples*, EPA-600/4-91-010, June 1991; and
- *USEPA Method 218.6, Determination of Dissolved Hexavalent Chromium in Drinking Water, Groundwater, and Industrial Wastewater Effluents by Ion Chromatography*, Revision 3.3, May 1994.

II. VALIDATION SUMMARY

The data were evaluated based on the following parameters:

	<u>Parameter</u>	<u>Acceptable</u>	<u>Comment</u>
1.	Data Completeness	Yes	
2.	Sample Preservation and Holding Times	Yes	
3.	Calibration	No	A
	a. Initial		
	b. Initial and Continuing Calibration Verification		
4.	Blanks	Yes	
5.	Laboratory Control Sample (LCS)	Yes	
6.	Duplicate Sample Analysis	Yes	
7.	Matrix Spike Sample Analysis	Yes	
8.	Field Duplicate Sample Analysis	N/A	
9.	Sample Quantitation	Yes	
10.	Overall Assessment	Yes	

N/A = Not Applicable

III. VALIDITY AND COMMENTS

- A. The following results should be flagged "J" because a continuing calibration verification (CCV) standard result is outside method QC limits.

- Hexavalent chromium in all samples

The CCV recovery result for hexavalent chromium does not meet the 95-105% criterion for accuracy specified in the method. The recovery for hexavalent chromium is presented below and is based on an ideal recovery of 100%.

<u>Analyte</u>	<u>% Recovery</u>
Hexavalent Chromium (CCV)	109

Since CCV was not reanalyzed as required by the method, results greater than or equal to the reporting limit (RL) are considered quantitatively uncertain. The results reported for hexavalent chromium in all samples may be biased high.

The inorganic method specifies that the laboratory verify that the instrument is properly calibrated on a continuing basis. Continuing calibration blank (CCB) and continuing calibration verification (CCV) standards are analyzed after every 10 analytical samples to determine the validity of the calibration.

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR INORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared in accordance with the document *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, October 2004.

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The result is an estimated quantity, but the result may be biased high.
- J- The result is an estimated quantity, but the result may be biased low.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
- UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.